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FOR

PUBLIC AFFAIRS STAFF

PROGRAM Word on Energy STATION WMAL Radio

DATE

March 11, 1983 7:45 AM

CITY Washington, DC

SUBJECT

The High-Altitude Powered Platform

DAVID STARLING: Toyota presents "A Word on Energy". Toyota dedicated toward doing something about one of the world's pressing problems, energy.

An unmanned aircraft powered by the sun to stay high in the sky is under development for possible future use. A note or two after this for Toyota.

A design concept is under development by the Lockheed Missiles and Space Company for NASA's Langley Research Center in Virginia for an unmanned, high-flying aircraft for possible use in the 1990s. It's called the "high-altitude powered platform" says Arthur Fisher in Popular Science magazine. The idea is to maintain a stationary position at 70,000 feet for months at a time, getting enough electric power from its solar cells to drive it's large propellar to keep it in place.

Photovoltaic(?) cells cover both sides of the wingtips and the vertical stabilizers with the wingtips hinging upwards during the day to receive the maximum amount of the sun's rays.

At night the wingtips return to horizontal for best aerodynamic performance. In the darkness fuel cells charged during the day would provide power. The central pod would carry a 100 pound instrument package containing various sensors for monitoring. Wingspan could be in the range of 150 to 300 feet which weigh a 1,000 to 3,000 pounds.

Among the proposed applications would be monitoring of crops in California's central valley, or the United States 2

Department of Agriculture and simular assignments.

This has been another word on energy presented by Toyota. Have you saved any energy today?

I'm David Starling.